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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,574	06/24/2005	Takeshi Kato	017700-0175	6415

23392 7590 05/29/2009

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EXAMINER	
VIJAYAKUMAR, KALLAMBELLA M	

ART UNIT	PAPER NUMBER
1793	

MAIL DATE	DELIVERY MODE
05/29/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/540,574	KATO ET AL.	
	Examiner	Art Unit	
	KALLAMBELLA VIJAYAKUMAR	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

- A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/17/2009 has been entered.
- Claims 1, 4 and 11-13 were amended. New claims 15-20 were added. Claims 1-20 as amended are currently pending with the application.
- Applicants submission of Certified English Translation of the priority document 03/17/2009 perfects the foreign priority claim.

Claim Rejections under 35 USC 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1-20 are rejected under 35 U.S.C. 103(a) as obvious over Li et al (US 6,555,503).

Li et al teach a multifilamentary tape comprising a BSCCO-2223 oxide superconductor with a filament density of ≥ 90% theoretical density (Abstract, Cl –9, Ln 64- to Cl-10, Ln-8). With regard to the method claims, the prior art teaches making the tape containing BSCCO-2223 oxide by filling a silver tube with tetragonal BSCCO-0011 and BSCCO-2212, drawing the P-I-T into a wire and heat treating the sample to attain sample with a density of about 90% and a fill factor of about 90% (Cl 14, Ex-1). The tape meets the limitation of device/wire in the claims. The prior art teaches filing the oxide/precursor into a silver tube, subject to high degree of reduction in a single step and sinter the composite forming the tape (Cl-19, Ln 34-39; Cl 21-22, Ex-1). The prior art further teaches HIPing the precursor at a pressure of 2.5-25 MPa (Cl-5, Ln 9-13). The prior art further teaches a first and second rolling steps with deformation and heat treatment (Cl-9, Ln 19-36; Cl-12, Ln 17-31). The instant claim limitation requires the oxide phase to have specific theoretical density.

The prior art fails to provide a working example with a sintering density of at least 93% per the claims 1, 4 and 11.

However, the prior art teaches a density of about 90% that would touch or lie close to the instant claimed range of at least 93%, and a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. Titanium Metals Corp. of America v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). The prior art product is similar to that claimed by the applicants in the product by process claims, and When the reference teaches a product that appears to be the same as, or an obvious variant of, the product set forth in a product-by-process claim although produced by a different process, the claim is not patentable. See In re Marosi, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) And In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP §2113.

With regard to claims 2-3, 5-6 and 12-13, the prior art teaches making an article with a density of >90% that would encompass a range of 90-100%, and teaches all the elements of making the tape, and it would have been obvious to a person of ordinary skilled in the art the optimize the process conditions by routine experimentation over the teachings of the prior art to attain desired density, and "[W]here the

general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See also *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) (prior art suggested proportional balancing to achieve desired results in the formation of an alloy).

With regard to claims 7-10, the prior art teaches sintering the BSCCO filled silver tube, and, and process limitations cannot serve to impart patentability to structures. In re Dike, 157 USPQ 581, 585 (CCPA 1968).

With regard to claims 14, 17 and 19, the prior art teaches deformation of the tube whereby the reduction in the thickness of the tube will be obvious that could be optimized by a person of ordinary skilled in the art by routine experimentation, and "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See also *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) (prior art suggested proportional balancing to achieve desired results in the formation of an alloy).

With regard to the claims 15-16, 18 and 20, the prior art composition, method of making the composition, the components processed therein are similar to that taught by the applicants, and they will possess similar characteristics/properties.

Response to Applicants Arguments

- Applicants arguments filed 03/17/2009 have been fully considered that perfects the claim of foreign priority.
- In response to the argument that Li (US-503) does not teach the limitation of thickness that has been reduced by the heat treatment (Res, Pg-7, Para 2-4), Lee teaches all the aspects of the composition, structure and method of making the structure, wherein the prior art composition, method of

making the composition, the components processed therein are similar to that taught by the applicants, and they will possess similar characteristics/properties.

- For the reasons set forth above, applicants fail to patentably distinguish their process and device/wire over the prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KALLAMBELLA VIJAYAKUMAR whose telephone number is (571)272-1324. The examiner can normally be reached on M-F 07-3.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 5712721358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KMV/
May 24, 2009.

/Stanley Silverman/
Supervisory Patent Examiner, Art Unit 1793